Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_

201 1.4 Notes “Measure and Classify Angles”

Angle-figure formed by 2 rays with a common endpoint



Naming the angle:

∠ABC ∠CBA ∠B

(You can only use one letter, when there is only one ∠ whose vertex is B.)

Rays are the sides of an angle------ and are the sides in the picture above.

Common endpoint is the vertex---Point B is the vertex in the angle above.

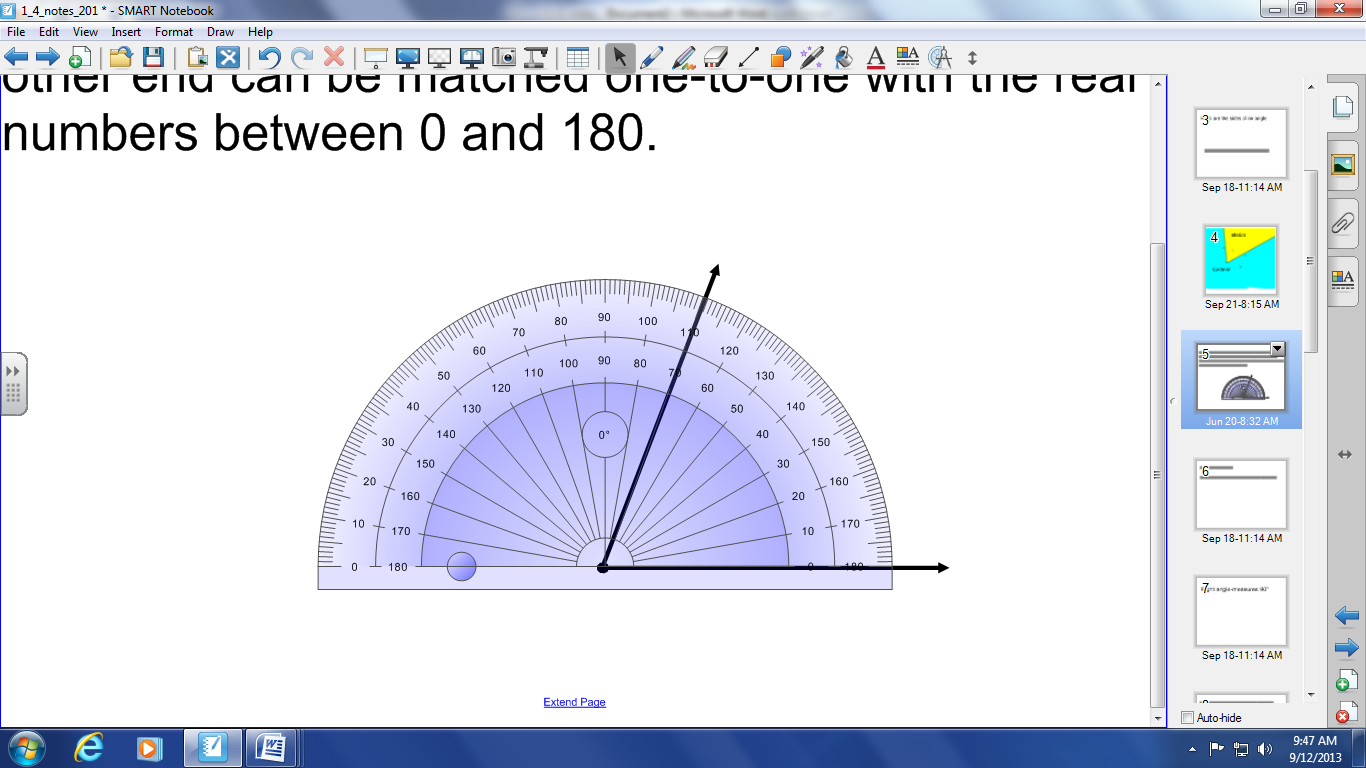


Interior (shaded)

E is in the interior

Exterior (not shaded)

D is in the exterior

Postulate 3--Protractor Postulate--An angle can be positioned so that one ray ends with 0 and the other end can be matched one-to-one with the real numbers between 0 and 180.

Classifying Angles

Acute angle—measures between 0° and 90°

Right angle—measures 90°

Obtuse angle—measures between 90° and 180°



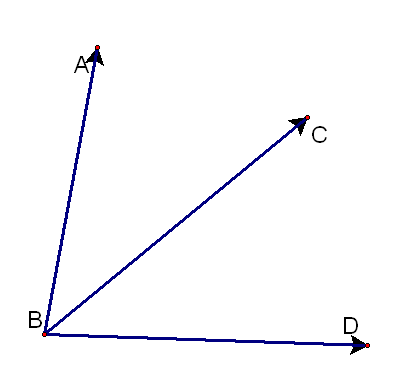
Straight angle—measures 180°

Postulate 4--The Angle Addition Postulate--If R is in the interior of ∠PQS,

then m∠PQR + m∠RQS = m∠PQS

Congruent angles-angles that have the same measurement

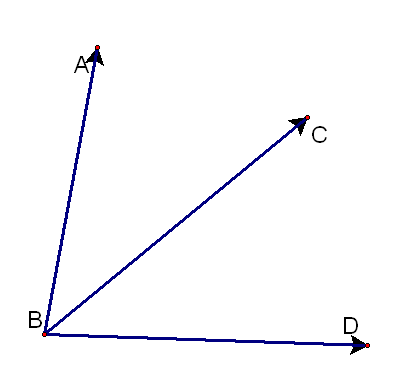
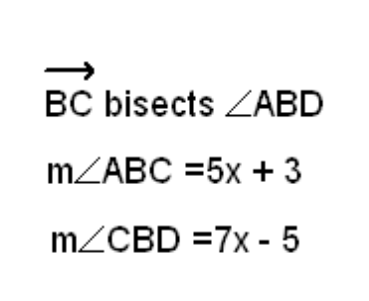
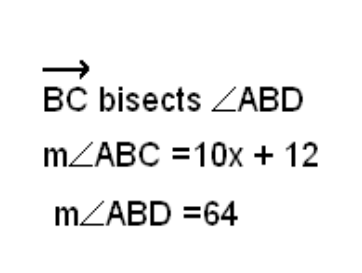
Angle Bisector—ray that divides an angle into 2 congruent angles

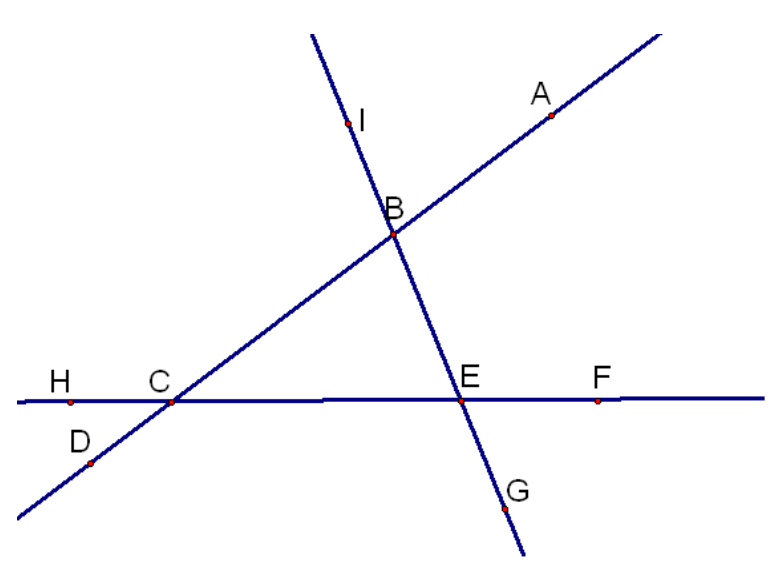
 bisect ∠ABD

∠ABC ≅ ∠\_\_\_\_\_\_

m∠ABC = m∠\_\_\_\_\_\_\_\_

Use the same picture for the next two examples.

Solve for x and find the m∠ABC. Solve for x.

Use the figure to the right.

For numbers 1-3, classify the angle as right, acute, obtuse or straight.

1. ∠IBE\_\_\_\_\_\_\_\_\_\_
2. ∠CEF\_\_\_\_\_\_\_\_\_\_
3. ∠IEF\_\_\_\_\_\_\_\_\_\_
4. Give another name for ∠ABE.\_\_\_\_\_\_\_
5. Give another name for ∠BCE. \_\_\_\_\_\_
6. Name the sides of ∠BEF. \_\_\_\_\_\_\_\_\_\_\_\_
7. Name the vertex of ∠HCD.\_\_\_\_\_\_\_\_\_